



*Jtw*  
FE6163 (US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of: )  
John Richard Severn et al. )  
Serial No.: 10/589590 ) Examiner: Unknown  
Filed: August 16, 2006 ) Art Unit: Unknown  
For: TITANOCENEN-BASED CATALYST )  
SYSTEM )

February 7, 2007

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

This Information Disclosure Statement is being filed before the first Office action on the merits.

It is requested that the enclosed documents listed on the attached Information Disclosure Citation form PTO-1449 be considered by the Patent Examiner in connection with the above-identified application and be made of record therein. A copy of the International Search Report for this application is enclosed.

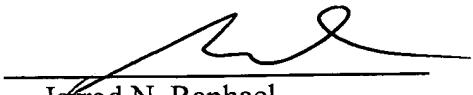
Independent consideration and acknowledgement of the enclosed documents are respectfully requested.

No payment is believed to be due; however, the Commissioner is hereby authorized to charge USPTO deposit account 08-2336 any payment due and to credit any overpayment thereto.

-2-

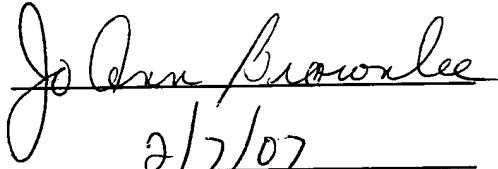
Respectfully submitted,  
**John Richard Severn et al.**

By:

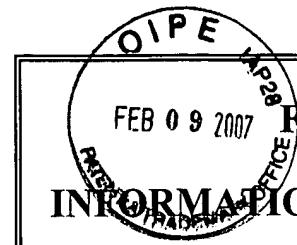
  
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I hereby certify that this correspondence is being deposited with sufficient postage thereon with the United States Postal Service as first class mail on February 27, 2007, in an envelope addressed to:  
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\_\_\_\_\_  
2/7/07

Date of Signature



## FORM PTO-1449

## INFORMATION DISCLOSURE CITATION

Atty Docket FE 6163 (US)	Serial No. 10/589,590
Applicant <b>John Richard Severn et al.</b>	
Filing Date <b>August 16, 2006</b>	Group Art Unit <b>Not Yet Assigned</b>

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Issue Date	Name	Class	Sub-Class	Filing Date
AA	4,399,054	08/16/83	Ferraris et al.			
AB	5,145,819	09/08/92	Winter et al.			
AC	5,239,022	08/24/93	Winter et al.			
AD	5,243,001	09/07/93	Winter et al.			
AE	5,324,800	06/28/94	Welborn, Jr. et al			
AF	5,556,928	09/17/96	Devore et al.			
AG	5,698,487	12/16/97	Sacchetti et al			
AH	6,500,975	12/31/02	Schwab et al.			

## FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Sub-Class	Trans-lation
AI	129,368	12/27/85	EP			
AJ	395,083	10/31/90	EP			
AK	416,815	03/13/91	EP			
AL	420,436	04/03/91	EP			
AM	485,820 (counterpart US 5,239,022)	05/20/92	EP			

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AN		F.R.W.P. Wild et al., <i>ansa</i> -Metallocene Derivatives-IV.*Synthesis and Molecular Structures of Chiral <i>ansa</i> -Titanocene Derivatives with Bridged Tetrahydroindenyl Ligands, <i>Journal of Organometallic Chemistry</i> , Vol. 232, p. 233-247 (1982)
AO		A. Cardoso et al., "Reactions of Trimethylsilylcyclopentadiene Derivatives with Titanium, Niobium, and Tantalum Halides," <i>J. Chem. Soc., Dalton Trans.</i> , Vol. 7, p. 1156-1160 (1980)
AP		D. W. Stephan et al., "An Approach to Catalyst Design: Cyclopentadienyl-Titanium Phosphinimide Complexes in Ethylene Polymerization," <i>Organometallics</i> , Vol. 22, p. 1937-1947 (2003)

Examiner

Date Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609.

Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to Applicant.

**FORM PTO-1449****INFORMATION DISCLOSURE CITATION**

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Filing Date <b>August 16 2006</b>	Group Art Unit <b>Not Yet Assigned</b>

**U.S. PATENT DOCUMENTS**

Examiner Initial		Document Number	Issue Date	Name	Class	Sub-Class	Filing Date

**FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	Class	Sub-Class	Trans-lation
	BA	485,822 (counterpart US 5,243,001)	05/20/92	EP			
	BB	485,823 (counterpart US 5,145,819)	05/20/92	EP			
	BC	553,806	08/04/93	EP			
	BD	576,213	12/29/93	EP			
	BE	643,066	03/15/95	EP			

**OTHER** (Including Author, Title, Date, Pertinent Pages, etc.)

BF		J. Sassemannshausen et al., "Half-sandwich complexes of titanium and zirconium with pendant phenyl substituents. The influence of <i>ansa</i> -aryl coordination on the polymerisation activity of half-sandwich catalysts," <u>Journal of Organometallic Chemistry</u> , Vol. 592, p. 84-94 (1999)
BG		H. Seock Cho et al., "Polymerization of Ethylene and Ethylene/1-Hexene over Ziegler-Natta/Metallocene Hybrid Catalysts Supported on MgCl <sub>2</sub> Prepared by a Recrystallization Method," <u>Journal of Applied Science</u> , Vol. 70, p. 1707-1715 (1998)
BH		Y. Gwan Ko et al., "The Characteristics of Metallocene/Ziegler-Natta Hybrid Catalysts Supported on the Recrystallized MgCl <sub>2</sub> ," <u>Korean J. Chem. Eng.</u> , Vol. 16(5), p. 562-570 (1999)

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<b>INFORMATION DISCLOSURE CITATION</b>				Applicant <b>John Richard Severn et al.</b>			
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Examiner Initial		Document Number	Issue Date	Name	Class	Sub-Class	Filing Date
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Sub-Class	Trans-lation
	CA	671,404	09/13/95	EP			
	CB	63 168408	11/15/94	JP			w/abstract
	CC	91/04257	04/04/91	WO			
	CD	96/22995	08/01/96	WO			
	CE	98/22486	05/28/98	WO			
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)							
	CF	H. Seock Cho et al, "Preparation of Inorganic MgC <sub>2</sub> -Alcohol Adduct and Its Application in Organometallic HYBRID Catalysts for Ethylene Polymerization" <u>Korean J. Chem. Eng.</u> , Vol. 19(4), p. 557-563 (2002)					
	CG	G. Satyanarayana et al., "An Unusually Stable Supported Bis(cyclopentadienyl)titanium Dichloride-Trialkylaluminum Catalyst System for Ethylene Polymerization," <u>Macromolecules</u> , Vol. 26(17), p. 4712-4714 (1993)					
	CH	H. Seock Cho et al., "Synthesis of inorganic MgCl <sub>2</sub> -alcohol adduct via recrystallization method and its application in supported organometallic catalysts for the polymerization of ethylene with 1-hexene" <u>Journal of Molecular Catalysis A: Chemical</u> 191 p. 155-165 (2003)					
Examiner				Date Considered			
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**Applicant**

**John Richard Severn et al.**

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## **FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	Class	Sub-Class	Trans-lation
	EA	03/045964 (corresponds to PCT/EP02/13552)	06/05/03	WO			

**OTHER** (Including Author, Title, Date, Pertinent Pages, etc.)


Examiner

**Date Considered**

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